

Atty. Docket No. PPW06-569DS
Serial No: 10/743,573

Amendments to the Claims

Please amend Claim 1, and delete Claims 5, 6, 9, 12, 15, and 19, as follows:

1. (Currently Amended) A method for fabricating a capacitor in a metal/insulator/metal structure including a first metal layer, a dielectric layer comprising a nitride, and a second metal layer comprising Ti and TiN in order, the method comprising:

forming a photoresist pattern on the second metal layer;

etching the second metal layer with a gas mixture consisting essentially of Cl₂, CHF₃, and Ar in a ratio of 5:1:5, using the photoresist pattern as a mask; and

etching the dielectric layer with a gas mixture consisting essentially of Cl₂ and Ar in a ratio of 1 to 2, using the photoresist pattern as the mask~~under conditions different from etching the second metal layer,~~ to leave a residual dielectric layer over the first metal layer in an etched part of the dielectric layer.

2. (Previously Presented) The method of claim 1, wherein etching the second metal layer comprises a first reactive ion etching process, and etching the dielectric layer comprises a second reactive ion etching process.

3. (Cancelled)

4. (Cancelled)

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5. (Cancelled)
6. (Cancelled)
7. (Currently Amended) The method of claim ~~[[6]]~~1, wherein a thickness of the Ti is 300 to 700Å and a thickness of the TiN is 1300 to 1700Å .
8. (Original) The method of claim 1, wherein a total thickness of the second metal layer is 1600 to 2400Å .
9. (Cancelled)
10. (Original) The method of claim 1, wherein a thickness of the dielectric layer is 400 to 800Å .
11. (Previously Presented) The method of claim 1, wherein the first metal layer comprises a first Ti/TiN stack, an AlCu layer and a second Ti/TiN stack in order.
12. (Cancelled)

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13. (Currently Amended) The method of claim 1, wherein, etching the second metal layer comprises etching the second metal layer for 45 to 55 seconds.

14. (Original) The method of claim 1, wherein etching the second metal layer comprises generating a plasma at a pressure of 8mTorr and a power of 900W and applying a bias power of more than 150W.

15. (Cancelled)

16. (Original) The method of claim 1, wherein an etching time associated with the dielectric layer is between about 10 to 15% of an etching time associated with the second metal layer

17. (Original) The method of claim 1, wherein etching the dielectric layer comprises etching the dielectric layer for 4.5 to 8 seconds.

18. (Original) The method of claim 1, wherein etching the dielectric layer comprises generating a plasma is generated under a pressure of 8mTorr and an application power of 900W and applying a bias power of more than 150W.

19. (Cancelled)

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20. (Previously Presented) The method of claim 1, wherein a thickness of the photoresist pattern is 11,000 to 15,000Å .

21. (Previously Presented) The method of claim 1, wherein the dielectric layer comprises silicon nitride.

22. (Previously Presented) The method of claim 1, wherein the residual dielectric layer comprises a continuous residual dielectric layer over the first metal layer.